



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor

Ted Stewart
Executive Director

James W. Carter
Division Director

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340
801-359-3940 (Fax)
801-538-5319 (TDD)

September 8, 1993

Ms. Debbie Pietrzak
Area Manager
Dixie Resource Area
Bureau of Land Management
237 North Bluff Street
St. George, Utah 84770

Re: Division Approval, Revised Reclamation Seed Mix, USMX Inc.,
Goldstrike Mine, M/053/005, Washington County, Utah

Dear Ms. Pietrzak;

The Division has reviewed USMX Inc.'s recent request to revise their reclamation seed mix as described in a letter dated August 31, 1993. Your office forwarded this letter to our office for review and comment.

The Division supports the operator's proposal to use species in the reclamation mix that have a proven adaptive onsite track record. We concur with the operator's proposal. Our only comment would be that the proposed rates be used for drill seeding. If the seed mix is to be broadcast, then the rates should be increased by 1/3.

Thank you for providing us with the opportunity to review and provide comment on this proposal. Please contact me or Holland Shepherd of my staff should you have further questions or concerns in this regard.

Sincerely,

D. Wayne Hedberg
Permit Supervisor
Minerals Regulatory Program

jb
cc: Robert Wilson, Goldstrike Mine
USMXSEED.LET



August 31, 1993

Ms. Debbie Pietrazk
Area Manager
U.S. Department of the Interior
Bureau of Land Management
Dixie Resource Area Office
237 North Bluff Street
St. George, UT 84770

RECEIVED

SEP 07 1993

DIVISION OF
OIL, GAS & MINING

Reference: Reclamation Seed Mix

Dear Ms. Pietrsak:

As fall approaches, we are looking forward to completion of reclamation in some areas at Goldstrike. Prior to ordering seed for this fall, we would like to propose some changes to our seed mix.

Our current seed mix consists of the following as stipulated by BLM approval of our Plan of Operations, August 31, 1992.

Common Name	Species (Variety)	(PLS) lbs/acre
Shrubs		
Desert Bitterbrush	Purshia Glandulosa	1
Serviceberry X	Amelanchier Utahensis	1
Mountain MahoganyX	Cercocarpus Montanus	1
Oakbrush SumacX	Rhus Trilobata	1
Forage Kochia	Kochia Prostrata	1
Forbs		
Yellow Sweetclover	Melilotus Officinalis	1
Lewis Flax	Linum Lewisii (Appar)	1
Palmer Penstemon	Penstemon Palmeri (Cedar)	1
Grasses		
Indian Ricegrass	Cryzopsis Hymencides (Paloma)	2
Pubescent Wheatgrass	Agropyrom Trichophorum (Lunar)	4
Smooth Brome	Bromus Inermis (Lincoln)	2
Russian WildryeX	Elymus Junceus	2
Galleta Grass X	Halaria Jamesii	2

USMX of Utah, Inc.

P.O. Box 2650, St. George, Utah 84770
(801) 574-3164 FAX (801) 574-3269

NASDAQ Symbol - USMX

Test plots were planted in the fall of 1992 using these plant varieties and others which were found in past seed mixes or recommended by our seed supplier. Plots were 30'x40' and were hand broadcast after ripping of topsoil with a dozer. Adequacy of seeding was determined visually during seeding.

In regards to the recommended seed mix, the following observations were made in the field today.

Desert Bitterbrush	6 seedlings found
Serviceberry	1 seedling found
Mt. Mahogany	none found
Oakbrush Sumac	none found
Forage Kochia	excellent establishment (hundreds)
Galleta Grass	none found
Russian Wildrye	very sparce

All other varieties in the seed mix show good establishment in the test plots.

Visually, the first year growth observed with this seed mix does not have near the coverage as the seed mix used in 1991. Both years experienced excellent conditions for germination and growth. Most of the species which are visible during the first year are forbs and grasses. Notably, I believe the establishment of grasses is much lower in the 1992 seedings.

Seed mix used in the fall of 1991 seedings:

Name	lbs/acres
✓ Tall Wheatgrass	10
✓ Streambank Wheatgrass	6
Indian Ricegrass	5
Intermediate Wheatgrass	2
✓ Alfalfa	4
✓ Fourwing Saltbrush	4
Cliff Rose	3
Bitterbrush	3
✓ Lewis Flax	2
✓ Globemallow	1

This raises concern on my part for soil stability. With reclamation, I believe of primary concern is soil stability as achieved by plant coverage. I feel we need to add back into the seed mix some of the Wheatgrasses, i.e. Thickspike, crested, intermediate and tall.

MS. DEBBIE PIETRZAK
RECLAMATION SEED MIX

DATE: 08/31/93
PAGE THREE

I would like to propose based on test plots and past experience the following seed mix for 1993.

Common Name	lbs/acres
Shrubs	
✓ Desert Bitterbrush	1
✓ Cliff Rose	2
✓ Fourwing Saltbush	2
✓ Forage Kochia	1
Forbs	
✓ Yellow Sweet-Clover	1
✓ Lewis Flax	1
✓ Palmer Penstemon	1
✓ Globemallow	.5
✓ Ladak Alfalfa	1
Grasses	
✓ Fall Wheatgrass	2
✓ Streambank Wheatgrass	2
✓ Intermediate Wheatgrass	2
✓ Pubescent Wheatgrass	2
✓ Indian Ricegrass	2
✓ Smooth Brome	2

Prompt consideration would be appreciated as we need to prepare for seeding beginning October 1, 1993.

If there are any questions, please do not hesitate to call.

Sincerely,

USMX OF UTAH, INC.



Robert K. Wilson
Environmental Coordinator

RKW:bas

cc: L. Gore
B. Bonebrake, DWR
W. Hedberg, UDOGM

USMX